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EXAMINER

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| ART UNIT | PAPER NUMBER |
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2664

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/372,129

Applicant(s)

BOLSEE, BENOIT

Examiner

Raj Jain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-7 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-7 and 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-7, 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ching et al (US Pat. 4665514).

Regarding claims 4, 9, 10, 13 and 15, Chiang discloses a method and apparatus for integrating digitized voice and data network, comprising:

a plurality of terminals for transmitting digitized signals, wherein the digitized signals may be compressed and uncompressed (**fig 1, abstract, cols 1-4**);

a plurality of switches for receiving the digitized signals and for acting as a protocol converter/adaptor for the incoming signals from the plurality of terminals (**Fig 1, SCT, cols 1-4**);
first lines for connecting the plurality of terminals to at least one of the plurality of switches (**113**);

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wherein each of the plurality of switches further comprises a compression module for compressing the incoming voice signals to digitized voice packets when the incoming voice signals are uncompressed and for packaging the compressed digitized data packets in a format compatible with web protocols (**figs 1 & 2; col 5 L1-7**);

wherein each of the plurality of switches further comprises a bridging module for packaging the incoming digitized data packets into a format compatible with web protocols when the incoming packets are compressed (**fig 2; col 7-8**)

wherein each of the plurality of switches further comprises a combining/switching module within the switch for combining the formatted digitized voice packets into long frames (**figs 3 & 4**);

a data network for receiving the long frames from the plurality of switches (**fig 1, 102**);

a second line for connecting the plurality of switches to the data network (**fig 1, 0-7**); and
a central switch for receiving the longer frames from the data network and for disassembling, switching and reassembling the longer frames and for returning the reassembled frames to the data network (**claims 1 & 4**).

Regarding claim 12, Ching further discloses adding a header (**figs 3 & 4; col 3 L1-10**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ching et al (US Pat. 4665514) as applied to claim 4 above, and further in view of Goldberg et al (US006389038B1).

Ching discloses a method and apparatus for integrating digitized voice and data network.

Ching fails to disclose the use of Internet for data transfer between different end devices (including phones, computers, fax and the like, etc) and differing network infrastructures.

Goldberg discloses the use of Internet for data transfer between different end devices (including phones, computers, fax and the like, etc) and differing network infrastructures.

Goldberg discloses first lines as PSTN lines (col 2 L60-65), second lines as IP links (fig 4; col 2 L3-10) and Internet networks (col 2 L65-67).

Voice compression with data integration and transfer of the same via single digital transmission line provides an efficient and cost effective methodology of communications while minimizing bandwidth utilization.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Goldberg with Ching so as to have an updated and current integrated voice and data network providing an efficient and cost effective communications network.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ching et al (US Pat. 4665514) as applied to claim 10 above, and further in view of Chuah et al.

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Ching discloses a method and apparatus for integrating digitized voice and data network.

Ching fails to disclose adding a 4-byte header to the voice packets before combining them.

Chuah et al. discloses a method of packet transport efficiency by appending a unique x-byte header to each voice packet that identifies the voice connection (cols. 7 -8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to append a "4-byte" header or any number thereof to the voice packets as desired to reduce the overhead carried by the voice packets.

Response to Arguments

Applicant's arguments filed 6 April 2004 have been fully considered but they are not persuasive.

With respect to the Abstract, applicant fails to provide a revised abstract and/or any remarks or reasoning to the prior Office Action request in regards to the same. Applicant is requested to provide appropriate changes to the Abstract as requested.

With respect to the "Chiang" reference use within the Office Action, this was a typo and the correct reference is "Ching", as also referred to in the "892".

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With respect to claims 4, 9, 10, 12, 13 and 15 Applicant contends Ching's invention is "inapposite" to applicants "claimed" invention and more specifically in regards to the following features (stated by Applicant):

- * Ching requires dedicated long distant carrier lines to transport the voice; the claimed invention works on already deployed general purpose packet networks;
 - **Ching clearly discloses transmission of voice and data via packets, from plurality of terminals and/or switches (see Fig 1 and cols 1-4).**
- * Ching requires every packet of every channel to be demultiplexed and a routing header added before they can be switched by the packet switch; the claimed invention only adds a microheader (much smaller than a routing header) to each voice packet and only one routing header per frame containing many voice packets;
 - **Ching discloses adding a header (figs 3 & 4; col 3 L1-10).**
- * If Ching is extended to a general purpose packet network, it would be different from the current situation where every voice packet has a routing header, causing a doubling in bandwidth compared to the voice bandwidth; *the claimed invention is precisely intended to get rid of routing header on every voice packet and keep the overhead low at packet format;*
 - **Ching discloses voice compression using adaptive pulse code modulation (figs 1 & 2; col 5 L1-7).**
- * In Ching the packet switch is just a means to switch calls in a node, it is not a transmission element; in the claimed invention the packet network is the transmission element.
 - **Applicant's argument is not clear, Ching's invention is a packet switch and circuit switched network, both of which are "transmission" elements (see abstract and cols 1-3).**

Applicant has not addressed any "specific" limitation within any of the independent claims which the Ching reference clearly fails to disclose, suggest or teach, rather applicant has presented what is believed to be "desired" features within applicant's invention instead of "claimed" features which applicant has not actually "claimed". Thus, Ching discloses all the

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“**claimed**” limitations as opposed to desired limitations and therefore claims 4, 9, 10, 13 and 15 stand rejected.

With respect to claims 5-7, and 14 Applicant contends “*Ching teaches away from the claimed invention. Therefore, any further combination with other references will also lead away from the present claims. The Goldberg method only applies to uncompressed voice and does not include the concept of the micro header.*” Once again, Ching does disclose all applicants’ “stated” limitations. The Goldberg reference is combined due to transfer of data between different end devices, and not for the concept of micro-header as applicant believes.

Ching discloses a method and apparatus for integrating digitized voice and data network.

Ching fails to disclose the use of Internet for data transfer between different end devices (including phones, computers, fax and the like, etc) and differing network infrastructures.

Goldberg discloses the use of Internet for data transfer between different end devices (including phones, computers, fax and the like, etc) and differing network infrastructures.

Goldberg discloses first lines as PSTN lines (col 2 L60-65), second lines as IP links (fig 4; col 2 L3-10) and Internet networks (col 2 L65-67).

Since the combination does teach all the limitations, therefore claims 5-7 and 14 stand rejected.

With respect to claim 11 Applicant contends, “*Chuah is only a router to router IP header removal technique by label assignment and therefore it is not multiplexing like NOP. It requires all routers to co operate which is not required with NOP.*”

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The present invention, NOP, is an innovative use of voice compression packet bundling and switching technique which is not taught, suggested or inherently provided by the references of record. Nothing in the references teaches or suggests adding a micro header inside the superframe to split the payload in a more generic way rendering the present claims patentable over the references."

Ching discloses a method and apparatus for integrating digitized voice and data network.

Ching fails to disclose adding a 4-byte header to the voice packets before combining them.

Chuah et al. discloses a method of packet transport efficiency by appending ***a unique x-byte header to each voice packet*** that identifies the voice connection (cols. 7-8).

Applicant's arguments regarding NOP with respect to "voice compression packet bundling and switching" is not clear, the cited references either alone or in combination do teach all the claimed limitations and more specifically teach the specific claimed invention (see Ching cols 1-3) which discloses integration of voice/data networks and further discloses "compression" of voice signals. Chuah discloses the use of x-byte headers to be incorporated within the voice packets. The use of different size headers provides for efficient packet transport by reducing overall packet densities within the network pipeline.

Since Ching and Chuah in combination do disclose all the limitations of claim 11, therefore claim 11 stands rejected.

Conclusion

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 703-305-5652. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4336. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

RJ
July 6, 2004


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